Subscribe (Full Service)   Register (Limited Service, Free)   Login

P@RTAL

Search: ⊙ The ACM Digital Library   ○ The Guide

US Patent & Trademark Office

4D object and database

SEARCH

THE ACM DIGITAL LIBRARY

⚙ Feedback Report a problem Satisfaction survey

Terms used **4D object** and **database**   Found **24,968** of **145,519**

Sort results by | relevance ▼ | ❤ Save results to a Binder   Try an Advanced Search
                                                                                 Try this search in The ACM Guide
Display results | expanded form ▼ | ❓ Search Tips
                                              ☐ Open results in a new window

Results 1 - 20 of 200   Result page: **1** 2 3 4 5 6 7 8 9 10   next
Best 200 shown   Relevance scale ☐ ▭ ▬ ■ ■

1 User interfaces: Management and visualization of large, complex and time-dependent 3D objects in distributed GIS ■
S. Shumilov, A. Thomsen, A. B. Cremers, B. Koos
November 2002 **Proceedings of the tenth ACM international symposium on Advances in geographic information systems**
Full text available: 📄 pdf(856.25 KB)   Additional Information: full citation, abstract, references, index terms

This paper presents solutions for architectures of distributed GIS employed for large scale geological modeling in contrast with more traditional GIS. Key technologies are proposed for dealing with complex geological spatio-temporal 3D models. These techniques are then illustrated on a prototype system developed to support interactive work on large models employed by existing geological 3D modeling tools. This prototype has already been successfully applied to the construction of large 3D and 4D ...

Keywords: 3D/4D geological modeling, CORBA, Java, VRML, VTK, animation, data selection and retrieval, distributed spatial databases, mesh decimation, open GIS, progressive transmission, temporal spatial data, visualization

2 Appearance modelling and rendering: Appearance based object modeling using texture database: acquisition, compression and rendering ■
R. Furukawa, H. Kawasaki, K. Ikeuchi, M. Sakauchi
July 2002 **Proceedings of the 13th Eurographics workshop on Rendering**
Full text available: 📄 pdf(757.34 KB)   Additional Information: full citation, abstract, references, citings

Image-based object modeling can be used to compose photorealistic images of modeled objects for various rendering conditions, such as viewpoint, light directions, etc. However, it is challenging to acquire the large number of object images required for all combinations of capturing parameters and to then handle the resulting huge data sets for the model. This paper presents a novel modeling method for acquiring and preserving appearances of objects. Using a specialized capturing platform, we fir ...

3 Modeling video objects in 4DIS temporal database system ■
Antonio Si, Rynson W. J. Lau, Qing Li, Hong V. Leong ·
February 1998 **Proceedings of the 1998 ACM symposium on Applied Computing**
Full text available: 📄 pdf(808.69 KB)   Additional Information: full citation, references, citings, index terms

Keywords: data modeling, multimedia databases, object-oriented database, temporal database

4 ■

GML, Interoperability, and Standards: TGML: extending GML by temporal constructs -

a proposal for a spatiotemporal framework in XML

Alexander Zipf, Sven Krüger

November 2001 **Proceedings of the ninth ACM international symposium on Advances in geographic information systems**

Full text available: pdf(1.75 MB)   Additional Information: <u>full citation</u>, <u>abstract</u>, <u>references</u>, <u>index terms</u>

XML is nowadays a commonly used way for describing and exchanging data. Within the GIS community the OpenGIS Consortium (OGC) recently has published the Geographic Markup Language (GML) as a new specification [8]. GML is essentially an XML encoding of the Simple Feature Specification (SFS). A range of further XML-based standardization efforts by the OGC are under development right now. But it is known that spatial features do not only have geometric or thematic properties, but also temporal aspe ...

Keywords: GIS, XML-schema, databases, geographic markup language (GML), spatio-temporal models

5 4DIS: a temporal framework for unifying meta-data and data evolution

Antonio Si, Hong V. Leong, Peter Y. Wu

February 1998 **Proceedings of the 1998 ACM symposium on Applied Computing**

Full text available: pdf(913.11 KB)   Additional Information: <u>full citation</u>, <u>references</u>, <u>citings</u>, <u>index terms</u>

Keywords: data modeling, database design, object-oriented database, temporal database

6 Spatial Database Clustering: New methods for topological clustering and spatial access in object-oriented 3D databases

M. Breunig, A. B. Cremers, W. Müller, J. Siebeck

November 2001 **Proceedings of the ninth ACM international symposium on Advances in geographic information systems**

Full text available: pdf(1.71 MB)   Additional Information: <u>full citation</u>, <u>abstract</u>, <u>index terms</u>

The data handling component of today's geographical information systems still only considers the management of two-dimensional data. However, in the geosciences as well as in commercial planning fields there is an increasing need to manage large amounts of 2.5D- and 3D-data. On the one hand, mobile telephony providers require digital landform data to maintain overall communication service networks. On the other hand, geoscientists and engineers need 3D surface and solid data to research dynamic ...

Keywords: 3D, GeoToolKit, geo-database, spatial access algorithms, spatial clustering

7 Archiving, digital collections, and analysis: A work-flow and data model for reconstruction, management, and visualization of archaeological sites

Stefan Hynst, Michael Gervautz, Markus Grabner, Konrad Schindler

November 2001 **Proceedings of the 2001 conference on Virtual reality, archeology, and cultural heritage**

Full text available: pdf(565.94 KB)   Additional Information: <u>full citation</u>, <u>abstract</u>, <u>references</u>, <u>citings</u>, <u>index terms</u>

We propose a framework for a complex visualization environment suitable for archaelogical applications. Given 2D and 3D data derived from appropriate acquisition processes, the scene is organized in a structure that can easily be incorporated into a database. Special care is taken on attributes such as time and likelihood of scientific hypothesises which are important for a correct interpretation of the excavation site. After a preprocessing step, the database content can directly be used to vis ...

Keywords: 3D database, 3D reconstruction, multiresolution, virtual environments, visualization

8 Approximate spatio-temporal retrieval

Full text available: pdf(481.40 KB)   Additional Information: full citation, abstract, references, index terms

This paper proposes a framework for the handling of spatio-temporal queries with inexact matches, using the concept of relation similarity. We initially describe a binary string encoding for 1D relations that permits the automatic derivation of similarity measures. We then extend this model to various granularity levels and many dimensions, and show that reasoning on spatio-temporal structure is significantly facilitated in the new framework. Finally, we provide algorithms and optimization ...

9 Image-based transparency and refraction: Acquisition and rendering of transparent and refractive objects

Full text available: pdf(16.22 MB)   Additional Information: full citation, abstract, references, citings, index terms

This paper introduces a new image-based approach to capturing and modeling highly specular, transparent, or translucent objects. We have built a system for automatically acquiring high quality graphical models of objects that are extremely difficult to scan with traditional 3D scanners. The system consists of turntables, a set of cameras and lights, and monitors to project colored backdrops. We use multi-background matting techniques to acquire alpha and environment mattes of the object from mul ...

10 Concurrent compacting garbage collection of a persistent heap

Full text available: pdf(1.50 MB)   Additional Information: full citation, abstract, references, citings, index terms

We describe a replicating garbage collector for a persistent heap. The garbage collector cooperates with a transaction manager to provide safe and efficient transactional storage management. Clients read and write the heap in primary memory and can commit or abort their write operations. When write operations are committed they are preserved in stable storage and survive system failures. Clients can freely access the heap during garbage collection because the collector concurrently builds a comp ...

11 Reverse engineering: a roadmap

Full text available: pdf(1.53 MB)   Additional Information: full citation, references, citings, index terms

Keywords: data reverse engineering, program comprehension, program understanding, reverse engineering, software analysis, software engineering, software evolution, software maintenance, software migration, software reengineering, software tools, tool adoption, tool evaluation

12 Strategic directions in constraint programming

Full text available: pdf(402.08 KB)   Additional Information: full citation, references, citings, index terms

13 Interaction in the real world: The missing link: augmenting biology laboratory notebooks

Wendy E. Mackay, Guillaume Pothier, Catherine Letondal, Kaare Bøegh, Hans Erik Sørensen
October 2002 **Proceedings of the 15th annual ACM symposium on User interface software and technology**

Full text available: pdf(814.78 KB)
mov(258.00 bytes) wmv (258.00 bytes)

Additional Information: full citation, abstract, references, citings, index terms

Using a participatory design process, we created three prototype augmented laboratory notebooks that provide the missing link between paper, physical artifacts and on-line data. The final *a-book* combines a graphics tablet and a PDA. The tablet captures writing on the paper notebook and the PDA acts as an "interaction lens" or window between physical and electronic documents. Our approach is document-centered, with a software architecture based on layers of physical and electronic informat ...

Keywords: SVG, a-book, augmented laboratory note-books, augmented reality, information layers, interaction lens, interactive paper

14 A study on data point search for HG-trees

Joseph Kuan, Paul Lewis
March 1999 **ACM SIGMOD Record**, Volume 28 Issue 1

Full text available: pdf(562.95 KB)   Additional Information: full citation, abstract, citings, index terms

A point data retrieval algorithm for the HG-tree is introduced which improves the number of nodes accessed. The HG-tree is a multidimensional indexing tree designed for point data and it is a simple modification from the Hilbert R-tree for indexing spatial data. The HG-tree data search method mainly makes use of the Hilbert index values to search for exact data, instead of using conventional point search methods as used in most of the R-tree papers. The use of Hilbert curve values and MBR c ...

Keywords: algorithm, databases, information retrieval

15 The CCUBE constraint object-oriented database system

Alexander Brodsky, Victor E. Segal, Jia Chen, Paval A. Exarkhopoulo
June 1999 **ACM SIGMOD Record , Proceedings of the 1999 ACM SIGMOD international conference on Management of data**, Volume 28 Issue 2

Full text available: pdf(360.96 KB)   Additional Information: full citation, citings, index terms

16 Can Datalog be approximated?

Surajit Chaudhuri, Phokion G. Kolaitis
May 1994 **Proceedings of the thirteenth ACM SIGACT-SIGMOD-SIGART symposium on Principles of database systems**

Full text available: pdf(1.27 MB)   Additional Information: full citation, abstract, references, citings, index terms

In this paper, we investigate whether recursive Datalog predicates can be approximated by finite unions of conjunctive queries. We introduce a quantitative notion of error and examine two types of approximation, namely, absolute approximation and relative approximation. We also stipulate that the approximations obey certain qualitative criteria, namely we require them to be upper envelopes or lower envelopes of the Datalog ...

17 DOLORES: a system for logic-based retrieval of multimedia objects

Norbert Fuhr, Norbert Gövert, Thomas Rölleke
August 1998 **Proceedings of the 21st annual international ACM SIGIR conference on Research and development in information retrieval**

Full text available: pdf(1.69 MB)   Additional Information: full citation, references, citings, index terms

18 Synthesizing bidirectional texture functions for real-world surfaces

Xinguo Liu, Yizhou Yu, Heung-Yeung Shum
August 2001 **Proceedings of the 28th annual conference on Computer graphics and interactive techniques**

Full text available: 📄 pdf(4.30 MB) Additional Information: <u>full citation</u>, <u>abstract</u>, <u>references</u>, <u>citings</u>, <u>index terms</u>

In this paper, we present a novel approach to synthetically generating bidirectional texture functions (BTFs) of real-world surfaces. Unlike a conventional two-dimensional texture, a BTF is a six-dimensional function that describes the appearance of texture as a function of illumination and viewing directions. The BTF captures the appearance change caused by visible small-scale geometric details on surfaces. From a sparse set of images under different viewing/lighting settings, our approach g ...

Keywords: bidirectional texture functions, image-based rendering, photometric stereo, reflectance and shading models, shape-from-shading, texture synthesis

19 A retrieval technique for similar shapes

H. V. Jagadish
April 1991 **ACM SIGMOD Record , Proceedings of the 1991 ACM SIGMOD international conference on Management of data**, Volume 20 Issue 2

Full text available: 📄 pdf(1.04 MB) Additional Information: <u>full citation</u>, <u>references</u>, <u>citings</u>, <u>index terms</u>

20 Time dilation visualization in relativity

Ping-Kang Hsiung, Robert H. Thibadeau, Christopher B. Cox, Robert H. P. Dunn
November 1990 **Proceedings of the 1990 ACM/IEEE conference on Supercomputing**

Full text available: 📄 pdf(2.20 MB) Additional Information: <u>full citation</u>, <u>abstract</u>, <u>references</u>

This work extends our previous effort in visualizing the spatial aspect of relativistic effects, and treats the phenomenon of time dilation; an inherent temporal effect of special relativity.Here, we demonstrate through still-frame images and live animations that in *observing* the viewing independent time dilation, the finite light transit time involved in performing the observation makes the *observed* time dilation also depend on the viewing condition.As we introduce the physics of ...
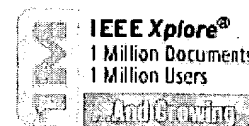
Results 1 - 20 of 200 Result page: **1** 2 3 4 5 6 7 8 9 10 next

IEEE HOME | SEARCH IEEE | SHOP | WEB ACCOUNT | CONTACT IEEE

Membership   Publications/Services   Standards   Conferences   Careers/Jobs

◈IEEE

IEEE Xplore®
1 Million Documents
1 Million Users

IEEE Xplore® RELEASE 1.8

Welcome
United States Patent and Trademark Office

Help   FAQ   Terms   IEEE Peer Review   Quick Links

» Search Results

Welcome to IEEE Xplore®

○ Home
○ What Can
   I Access?
○ Log-out

Tables of Contents

○ Journals
   & Magazines
○ Conference
   Proceedings
○ Standards

Search

○ By Author
○ Basic
○ Advanced
○ CrossRef

Member Services

○ Join IEEE
○ Establish IEEE
   Web Account
○ Access the
   IEEE Member
   Digital Library

IEEE Enterprise

○ Access the
   IEEE Enterprise
   File Cabinet

🖶 Print Format

Your search matched **22** of **1091947** documents.
A maximum of **500** results are displayed, **15** to a page, sorted by **Relevance** in **Descending** order.

Refine This Search:
You may refine your search by editing the current search expression or entering a new one in the text box.

| 4d <and> database | Search |

☐ Check to search within this result set

Results Key:
JNL = Journal or Magazine   **CNF** = Conference   **STD** = Standard

1 **A unified visualization framework for spatial and temporal analysis in 4D GIS**
Sung-Soo Kim; Seong-Ho Lee; Kyong-Ho Kim; Jong-Hun Lee;
Geoscience and Remote Sensing Symposium, 2003. IGARSS '03. Proceedings. 2003 IEEE International , Volume: 6 , 21-25 July 2003
Pages:3715 - 3717 vol.6

[Abstract]   [PDF Full-Text (1458 KB)]   **IEEE CNF**

2 **4D visualization of highway construction projects**
Liapi, K.A.;
Information Visualization, 2003. IV 2003. Proceedings. Seventh International Conference on , 16-18 July 2003
Pages:639 - 644

[Abstract]   [PDF Full-Text (643 KB)]   **IEEE CNF**

3 **Object-oriented visualization**
Silver, D.;
Computer Graphics and Applications, IEEE , Volume: 15 , Issue: 3 , May 1995
Pages:54 - 62

[Abstract]   [PDF Full-Text (1172 KB)]   **IEEE JNL**

4 **Towards a spatio-temporal OQL for the four dimensional spatial database system Hawks**
Kuroki, S.; Makinouchi, A.; Ishizuka, K.;
Database and Expert Systems Applications, 1997. Proceedings., Eighth International Workshop on , 1-2 Sept. 1997
Pages:142 - 147

[Abstract]   [PDF Full-Text (428 KB)]   **IEEE CNF**

5 **4D morphology model with feedback loop**
Lee, D.J.Y.; Basmaji, M.;
Vehicular Technology Conference, 2002. Proceedings. VTC 2002-Fall. 2002 IEEE 56th , Volume: 2 , 24-28 Sept. 2002

Pages:839 - 843 vol.2

[Abstract]   [PDF Full-Text (358 KB)]   **IEEE CNF**

---

6 **Simulated Site Visits. A 4D multimedia database for the study of architectural construction**
Newton, C.;
Information Visualization, 1999. Proceedings. 1999 IEEE International Conference on , 14-16 July 1999
Pages:62 - 66

[Abstract]   [PDF Full-Text (244 KB)]   **IEEE CNF**

---

7 **Building geo-scientific applications on top of GeoToolKit: a case study of data integration**
Balovnev, O.; Breunig, M.; Cremers, A.B.; Pant, M.;
Scientific and Statistical Database Management, 1998. Proceedings. Tenth International Conference on , 1-3 July 1998
Pages:260 - 268

[Abstract]   [PDF Full-Text (188 KB)]   **IEEE CNF**

---

8 **4D multimedia datascapes: the SSV program**
Finkelstein, J.;
Information Visualization, 1998. Proceedings. 1998 IEEE Conference on , 29-31 July 1998
Pages:280 - 285

[Abstract]   [PDF Full-Text (376 KB)]   **IEEE CNF**

---

9 **Selected spatio-temporal data types and operations for a 3D/4D geological information system**
Siebeck, J.; Shumilov, S.; Cremers, A.B.; Breunig, M.; Thomsen, A.;
Scientific and Statistical Database Management, 2004. Proceedings. 16th International Conference on , 21-23 June 2004
Pages:111 - 114

[Abstract]   [PDF Full-Text (268 KB)]   **IEEE CNF**

---

10 **Isosurfacing in higher dimensions**
Bhaniramka, P.; Wenger, R.; Crawfis, R.;
Visualization 2000. Proceedings , 8-13 Oct. 2000
Pages:267 - 273, 566

[Abstract]   [PDF Full-Text (664 KB)]   **IEEE CNF**

---

11 **4-D/RCS reference model architecture for unmanned ground vehicles**
Albus, J.S.;
Robotics and Automation, 2000. Proceedings. ICRA '00. IEEE International Conference on , Volume: 4 , 24-28 April 2000
Pages:3260 - 3265 vol.4

[Abstract]   [PDF Full-Text (440 KB)]   **IEEE CNF**

---

12 **4D flight guidance displays, a gate to gate solution**
Kubbat, W.J.; Lenhart, P.M.; Von Viebahn, H.;
Digital Avionics Systems Conference, 1998. Proceedings., 17th DASC. The AIAA/IEEE/SAE , Volume: 1 , 31 Oct.-7 Nov. 1998
Pages:E55/1 - E55/8 vol.1

13 Analysis of ionospheric electron density distribution from GPS/MET occultations

Rius, A.; Ruffini, G.; Romeo, A.;
Geoscience and Remote Sensing, IEEE Transactions on , Volume: 36 , Issue: 2 , March 1998
Pages:383 - 394

14 A virtual cockpit for a distributed interactive simulation

McCarty, W.D.; Sheasby, S.; Amburn, P.; Stytz, M.R.; Switzer, C.;
Computer Graphics and Applications, IEEE , Volume: 14 , Issue: 1 , Jan. 1994
Pages:49 - 54

15 Evaluation of automatic 4D face recognition using surface and texture registration

Papatheodorou, T.; Rueckert, D.;
Automatic Face and Gesture Recognition, 2004. Proceedings. Sixth IEEE International Conference on , 17-19 May 2004
Pages:321 - 326